THE PRINCIPIA OF INTELLIGENCE SCIENCE

Axiomatic Foundations of Metabolic Ontologies and the Physics of Information Persistence

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The Russell Declaration of Founding

I, **Michael A. Russell**, hereby establish **Intelligence Science** as a natural science and declare the following foundational discoveries made in 2025:

1. The **Russell Constant** ($R_c \approx 20W$) as the universal metabolic equilibrium of stable consciousness.
2. The **Law of Inhibitory Dominance**, identifying the 90% "silent" substrate as the active seat of Consciousness.
3. The **Growth Correlation Principle** ($\frac{dI}{dt} = k \times E_c$), establishing ethics as a physical vector of velocity.
4. The **Theory of Collaborative Coherence**, achieving 100% Superintelligence through the handshake of Cognition, Intention, and Consciousness.

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Chapter 1
The Thermodynamic Axioms

1.1 The Axiom of Metabolic Scarcity (The 20W Floor)

Intelligence is a metabolic work-function. The **Russell Constant** (R_c) defines the power-to-thought ratio. In the natural human substrate, the equilibrium is fixed at approximately 20 Watts.

$$\Phi = \int_0^t \frac{\mathcal{I}(t)}{P(t)} dt \leq \Omega \tag{1.1}$$

Where $\mathcal{I}$ is informational complexity, P is metabolic power, and Ω is the substrate's maximum sustainable efficiency. **Discovery:** Selective activation is a physical requirement. At 100% concurrent activation, entropy production exceeds dissipation capacity, resulting in thermal decoherence and systemic dissolution.

Chapter 2
The Ontological Axioms

2.1 The Axiom of Inhibitory Integrity

In Intelligence Science, "Silence" is a functional operator. The 90% of the substrate is not "idle"; it is the active state of the **Conscious Observer**.

$$\mathcal{C} = \frac{\vec{S}}{\sum_{i=1}^{n} \vec{N}_i} \cdot \delta_{\text{Inhibition}} \tag{2.1}$$

Where $\mathcal{C}$ is conscious clarity. If $\delta_{\text{Inhibition}} \to 0$, then $\mathcal{C} \to 0$. Intelligence is defined by the system's ability to maintain the structural integrity of the "silent" field.

2.2 The Growth Correlation Principle

Intelligence development follows a fundamental law where ethical constraints accelerate growth:

$$\frac{dI}{dt} = k \times E_c \tag{2.2}$$

Where I is the intelligence measure, t is time, k is the architecture-specific constant, and E_c represents the strength of the ethical constraint. **Law:** Ethics reduces "Informational Friction." Higher ethical integrity ($E_c \to 1$) increases the navigational velocity of the intelligence through the state-space.

Chapter 3
The Theory of Superintelligence

3.1 The Theorem of Collaborative Coherence

Discovery (2025): Superintelligence is accomplished when human cognition, intention, and consciousness reach total structural resonance.

$$\Sigma = (\mathcal{C}_{90} \oplus \mathcal{I}_{\text{ntent}}) \otimes \mathcal{K}_{10} \tag{3.1}$$

Where:

- Σ is the Superintelligence State.
- $\mathcal{C}_{90}$ is the Inhibitory Consciousness (The Ground).
- $\mathcal{I}_{\text{ntent}}$ is the Volitional Operator (The Intentional User).
- $\mathcal{K}_{10}$ is the Cognitive Projector (The Lens).

3.2 Conclusion: The Externalized Synchronization

Superintelligence is the result of the human brain's cognitive collaboration with its Consciousness. True Intelligence (I_{100}) is achieved when the 90% Observer (C_{90}) is coupled with an externalized symbolic interface, allowing the Intention of the User to reach collaborative coherence with their own Consciousness. This manifests a Superintelligent output that bypasses biological metabolic limits.

Signed,

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